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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/811,316

03/26/2004

Robert Todd Pack

IRO-009

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7590

06/15/2006

GOODWIN PROCTER LLP
PATENT ADMINISTRATOR
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EXAMINER

KIM, SANG K

ART UNIT

PAPER NUMBER

3654

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/811,316

Applicant(s)

PACK ET AL.

Examiner

SANG KIM

Art Unit

3654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Response to Election 5/3/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 and 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-23 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 July 2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/26/04 & 7/22/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Election/Restrictions

Applicant's election with traverse of Group II, claims 11-23 and 25, in the reply filed on 5/3/06 is acknowledged. Applicant has elected with traverse, claims 11-23 and 25, but did not distinctly and specifically point out the supposed errors in the restriction requirement. Since applicant has failed to provide any argument for the restriction requirement, the requirement is still deemed proper and is therefore made FINAL.

Claims 1-10 and 24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 5/3/06.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, "a chassis, a chassis drive system, and a drive system sensor for determining platform velocity," as recited in claim 1; and "a cable comprising a first end portion, an intermediate portion, and a second end portion," as recited in claim 20; and "a platform drive system including a sensor," as recited in claim 25 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate

Art Unit: 3654

prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11-23 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 11 and 25, the phrase, "the controller determining an effective cable velocity based at least in part on platform velocity and platform configuration," is indefinite and vague.

Art Unit: 3654

What constitutes on how “an effective cable velocity” is based in part with the platform velocity and platform configuration? Also, what kind of “platform configuration” is required for the controller to determine an effective cable velocity?

In claim 12, the phrase, “the system controller utilizes a rigid body transform function,” is indefinite and vague. What constitutes the term “a rigid body transform function”? What structural element is applicant referring to? Because of the indefiniteness, claim 12 cannot be meaningfully treated with respect to the prior art at this time. An absence of an art rejection does not constitute the indication of allowance subject matter.

In claim 23, the phrase, “determining at least one of a position along a length of cable and a cable speed,” is indefinite and vague. What is determining the position of the cable length? Where in the specification supports this statement?

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11, 13-23 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by White et al., U.S. Patent No. 4736826.

Regarding claims 11, 23 and 25, White '826 discloses a mobile robot 30 with a chassis (e.g. frame), a chassis drive system by using the wheels 34 to move the robot,

Art Unit: 3654

a drive system sensor 45 for determining velocity of the robot, see column 9, lines 19-29. A cable handling system 57 secured to the chassis for dispensing and retrieving cable from the robot at substantially zero tension, see column 4, lines 64 through column 5, line 1. A system controller (see figure 16) for controlling the cable handling system, the controller determining velocity of the cable by using the encoder 73 and 75 based in part with velocity of the robot using the encoder 45, see column 8, lines 65 through column 9, lines 29.

Regarding claim 13, White '826 discloses the system controller manages a plurality of cable management modes by moving the robot or winding the cable.

Regarding claims 14-15, White '826 inherently discloses a track mode and a track reverse mode by paying out the cable when the robot moves forward and vice-versa when the robot moves backward.

Regarding claims 16-17, White '826 inherently discloses a track in mode and a track out mode by reeling in the cable or paying out the cable.

Regarding claim 18, White '826 inherently discloses an error mode by preventing entanglement of the cable when retracting the cable.

Regarding claim 19, White '826 inherently discloses an idle mode by not moving the robot and placing it under the stationary mode.

Regarding claims 20-21, White '826 discloses the cable reel 57, a first end portion (no reference number assigned) is the portion of the cable that is wound around the reel, see figure 9, an intermediate portion (no reference number assigned) is the portion of the cable wound about the cable reel and guided through the cable handling

Art Unit: 3654

system 57, and a second end portion (no reference number assigned) is the portion of the cable coming out from sheave groove 90, see figure 10, and out of the robot chassis and on to the floor at substantially zero tension.

Regarding claim 22, White '826 discloses a fiber optic cable and a power cable, see column 3, lines 44-55.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SANG KIM whose telephone number is 571-272-6947. The examiner can normally be reached Monday through Friday from 8:00 A.M. to 5:30 P.M. alternating Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki, can be reached on (571) 272-6951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

Application/Control Number: 10/811,316

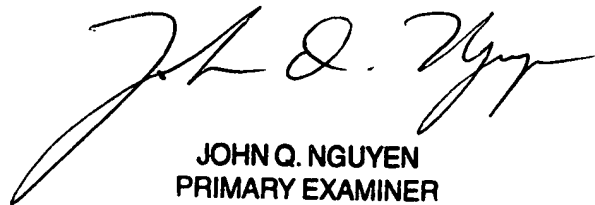
Page 7

Art Unit: 3654

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SK

6/10/06



JOHN Q. NGUYEN
PRIMARY EXAMINER